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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/396,428	09/15/1999	JOHN S. HENDRICKS	5915	7433

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EXAMINER

SLOAN, NATHAN A

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/396,428

Applicant(s)

HENDRICKS ET AL.

Examiner

Nathan A Sloan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 32-56 been renumbered 31-54 because no claim 31 or 47 were provided. Applicant must amend all claims to reflect proper dependency.

2. Renumbered claim 39 is objected to because of the following informalities: claim 39 depends on claim 23 when it appears it should depend on claim 31, which is how it will be treated for this Office Action. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 6, 8-12, 16-24, 27, 29-36, 39-44, 49, 50, and 53-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Sprague et al. (5,247,575).

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With respect to claim 1, Sprague et al. (5,247,575) teaches a terminal for use with a television program delivery system (col. 5:45-60), comprising an interface of SCSI Bus 2 in Fig. 10 and a "disc storage device connected to the interface" with CD-ROM 118.

With respect to claim 2, the claimed data stored on the disc storage device concerning "one or more applications selected from a group consisting of games, education, encyclopedias, reference, and economics" is taught in col. 2:25-31 with storing the entire works of Shakespeare as a "reference."

With respect to claim 3, the claimed microprocessor connected between the interface and the disc storage device is met by control unit 100 of Fig. 10.

With respect to claim 4, the claimed programming instructions "that execute on the microprocessor ... [to] access data stored on the disc storage device" are taught by control unit 100 which operates under a control program to serve as a central, coordinating computer for the system (col. 18:55-57, col. 19:52-55, and col. 20:5-15).

With respect to claims 6 and 8, the claimed interface being a SCSI connector is taught with SCSI bus as seen in Fig. 10, which inherently comprises a "multi-pin" connector.

With respect to claims 9 and 10, the claimed disc storing being a compact disc CD-ROM device is met by CD-ROM 118 of Fig. 10 as previously noted.

With respect to claim 11, similar limitations are recited as previously addressed in response to claim 1 above. Furthermore, the claimed terminal comprising a "receiver adapted to receive programs" is met by broadcast receiver 102 of Fig. 10.

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With respect to claim 12, the claimed “display that indicated when the first hardware upgrade is in use” is taught in col. 10:33-40 by displaying retrieved information.

With respect to claim 16, the claimed “one or more additional hardware upgrades connected to the terminal” is met by floppy disk 114 of Fig. 10.

With respect to claims 17-18, the claimed one or more additional hardware upgrades being connected “in a SCSI daisy-chain arrangement” is inherently supported by the SCSI teachings of Sprague.

With respect to claim 19, the claimed first and additional hardware upgrades are capable of operating simultaneously is seen in Fig. 10 with multiple “upgrades” being connected simultaneously and operating under control of control unit 11 (col. 18:55+ through col. 19:14).

With respect to claim 20, the claimed additionally hardware upgrade being selected from a group consisting of “audio program reception, interactive hardware upgrade that receives interactive subscriber input ..., and a modem hardware upgrade” is met by modem shown in Fig. 13 (col. 20:26-28).

Claims 21-22 are met as noted above in response to claims 9-10.

Claim 23 recites similar limitations as claim 11 as noted above with the additional limitation of a “television program delivery system adapted to deliver television program signals” which is taught in col. 5:45-60 and col. 19:37-45 using inherent available equipment to deliver television carrier video signals, which inherently contains programs.

With respect to claim 24, the claimed television program system being a CATV system is taught in col. 5:57-60.

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With respect to claim 27, the claimed television program delivery system being a “satellite broadcast system” is taught in col. 5:42-60.

Claims 29-30 are met as noted above in response to claims 9-10.

With respect to claim 31, the claimed receiver is met by broadcast receiver 102, the claimed disc storage device is met by CD-ROM 118, and the claimed “output connected to the receiver and the storage device ... that accepts television program signals from the receiver and data signals from the storage device” is met by user interface unit 124 with display (abstract, col. 20:31-33, and col. 20:66+). The television carrier video signal inherently contains “programs” as claimed (col. 19:37-45).

With respect to claim 32, the claimed output being “a video display” is met as noted in response to claim 31 above.

With respect to claims 33, the claimed output being a connector port is met with an inherent connector to user interface unit 124 (Fig. 10).

Claim 34-36 are met as noted above in response to claims 2-4.

Claims 39-40 are met as noted above in response to claims 9-10.

With respect to claim 41, the method including “receiving a television program” is taught in col. 5:42-60 and col. 19:37-45 with a television video signal inherently containing “programs.” Furthermore, the claimed accessing of data using a disc storage device and displaying the information based on the accessed data is met as previously noted by accessing and displaying information from a disc storage such as CD-ROM 118. Users may search for data access information packets based on their search as taught in col. 19:8-10, col. 20:5-10, and col. 20:61+ through col. 21:3.

Claims 42-43 are met as noted above in response to claims 4 and 9-10.

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Claim 44 is met as noted above in response to claim 2.

With respect to claim 49, the claimed receiving a subscriber input is taught in col. 18:37-46.

With respect to claim 50, the claimed "remotely receiving the subscriber input" is met by receiving the input from a touch screen or keyboard via user interface unit 124.

Claims 53-54 are met as noted above in response to claims 9-10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5, 37-38, 45-48, and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sprague et al. (5,247,575) in view of Vogel (5,253,066).

With respect to claims 5, 37, and 45-46 the claimed interface to the terminal transferring information concerning television programs is taught in col. 20:5-10. Information packets are retrieved and provided via SCSI Bus 2 to storage unit 110 of Fig. 10 (col. 19:57-63). Programs may then search the information packet according to user search criteria, claimed "programming instructions to monitor the information" as taught in col. 20:48-51, and col. 20:61+ through col. 21:3. If a match is identified according to the information, such as text data matching desired characteristics (col. 16:39-58), then

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the matching data is retrieved from a protected archival storage unit such as CD-ROM 118 (see also col. 19:8-10). Sprague does not explicitly teach that the information is “concerning television programs” or that the “accessing step is performed in response to receiving the television program.” Vogel (5,253,066) teaches receiving a similar system using a microprocessor and ROM for storing information concerning programs, such as classifications (col. 3:46+). This information is stored in response to receiving television programs and the information in a vertical interval (col. 8:39-46). The relevant stored text information may be retrieved in receipt of a command from a user (col. 4:1-11). It would have been obvious for one of ordinary skill in the art the time of the invention to modify the system of Sprague by utilizing information concerning programs as taught by Vogel in order to provide more relevant information to the user and facilitate selection program and information retrieval.

With respect to claim 38, Sprague teaches a broadcast receiver unit but not explicitly that it is a “HDTV terminal.” Examiner takes Official Notice that HDTV terminals were notoriously well known in the art at the time of the invention. It would have been obvious for one skilled in the art at the time of the invention to modify Sprague in view of Vogel by making the user terminal a HDTV terminal in order to benefit from higher quality signals and pictures.

With respect to claim 47, the information being received in a VBI is taught by Sprague (col. 19:40-43) and Vogel (col. 8:39-46).

With respect to claim 48, the claimed “program control information signal” is met as noted above in response to claim 46 by Vogel. It would have been obvious for one of ordinary skill in the art the time of the invention to modify the system of Sprague by

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utilizing information concerning programs as taught by Vogel in order to provide more relevant information to the user and facilitate selection program and information retrieval.

With respect to claim 51, the claimed “generating a menu on a television” and “receiving menu selections from one or more menus, wherein the subscriber input comprises menu selections” is not explicitly taught by Sprague. Vogel teaches generating menus on a television receiving menu selections as subscriber inputs as seen in Fig. 2-4 and taught in col. 4:26-50. It would have been obvious for one skilled in the art at the time of the invention to modify Sprague by using menu selection on a television as taught by Vogel in order to provide a simple, readily understood interface for users.

With respect to claim 52, the claimed accessing in response to the subscriber input is not taught by Sprague because the subscriber input is not taught to be a menu selection (claim 51). However, Sprague does teach accessing data based on a subscriber input (col. 20:61 through col. 21:3). Vogel teaches accessing data based on a subscriber input from a menu selection in col. 4:1-50. It would have been obvious for one skilled in the art at the time of the invention to modify Sprague by accessing data using menu selections on a television as taught by Vogel in order to provide a simple, readily understood interface for users.

7. Claim 7, 14-15, 25-26, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sprague et al. (5,247,575).

With respect to claim 7, Sprague does not teach the multipin connector “ranging from type DB9 to type DB25.” Examiner takes Official Notice that mutlipin connectors from DB9-DB25 were well known in the art at the time of the invention. It would have

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been obvious for one of ordinary skill in the art at the time of the invention to modify Sprague by supporting a variety of interface connectors DB9-DB25 in order to enable a plurality of standard interfaces that provide cost-effective, well established inputting/outputting of data.

With respect to claim 14, Sprague teaches a broadcast receiver unit but not explicitly that it is a "set top terminal." Examiner takes Official Notice that set-top terminals were notoriously well known in the art at the time of the invention. It would have been obvious for one skilled in the art at the time of the invention to modify Sprague by making the user terminal a set-top terminal in order to provide a compact local television receiver terminal with dedicated functionality and thus reduce system construction costs.

With respect to claims 15 and 28, Sprague teaches a broadcast receiver unit but not explicitly that it is a "HDTV terminal." Examiner takes Official Notice that HDTV terminals were notoriously well known in the art at the time of the invention. It would have been obvious for one skilled in the art at the time of the invention to modify Sprague by making the user terminal a HDTV terminal in order to benefit from higher quality signals and pictures.

With respect to claims 25-26, the claimed operations center and one or more head ends "transmitting one or more of the programs to the terminal" is not explicitly taught by Sprague. Delivery of television signals from a remote location with well known equipment is taught in col. 5:42-60 and col. 19:37-45. Examiner takes Official Notice that an operations center and head end were well known equipment for delivery of television signals at the time of the invention. It would have been obvious for one skilled

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in the art at the time of the invention to modify Sprague by using an operations center or head end in order to support existing infrastructures for transmitting signals to users.

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sprague et al. (5,247,575) in view of Graczyk (5,192,999).

With respect to claim 13, the claimed terminal having “an expansion card slot and wherein the interface comprises at least one card connector adapted for use with the expansion card slot” is not taught by Sprague. Graczyk (5,192,999) teaches an expansion card slot in Fig. 45 with a card connectors 510 and 520 adapted for use with the slot. It would have been obvious for one skilled in the art at the time of the invention to modify the SCSI interface of Sprague by providing an expansion card slot as taught by Graczyk in order to allow users to easily modify their system to meet new needs.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bacon et al. (5,440,632) teaches a reprogrammable subscriber terminal.

Granger (5,483,277) teaches a simplified set-top converter.

Baxter (4,935,924) teaches a signal distribution network.

Goldstein (5,410,326) teaches a programmable remote control for interacting with remotely controlled devices.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan A Sloan whose telephone number is (703) 305-8143. The examiner can normally be reached on Mon-Fri 7:30am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703)305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NAS


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